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L2 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:342198 HCAPLUS
DOCUMENT NUMBER: 133:3756
ENTRY DATE: Entered STN: 23 May 2000
TITLE: L-methionine and its preparation with
transgenic Escherichia coli mutants with defective
repressor and enhanced homoserine transsuccinylase
activity

INVENTOR(S): Usuta, Yoshihiro; Kurahashi, Osamu
PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese

INT. PATENT CLASSIF.:
MAIN: C12N015-09
SECONDARY: C12N001-21; C12N009-04; C12N009-10; C12N009-12;
C12N009-88; C12P013-12; C12N015-09; C12R001-19
CLASSIFICATION: 16-1 (Fermentation and Bioindustrial Chemistry)
Section cross-reference(s): 3, 7

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000139471	A2	20000523	JP 1998-326717	19981117
PRIORITY APPLN. INFO.:			JP 1998-326717	19981117

ABSTRACT:

Described is a method of manufg. L-methionine by cultivating a
Escherichia coli mutant with defective repressors (gene metJ), enhanced
homoserine transsuccinylase (gene metA) activity, and, optionally, decreased
S-adenosyl methionine synthetase activity. Furthermore, the mutants
may also have the enhanced activities of cystathionine- γ -synthase and
aspartokinase-homoserine dehydrogenase II. Also claimed are the S-adenosyl
methionine synthetase (metK) mutants with substitution mutations at
27-Arg.fwdarw.Cys, 296-Ile.fwdarw.Ser, 298-Pro.fwdarw.Leu, or a combination of
them. The mutants are free of the synergistic inhibition by L-
methionine and S-adenosyl methionine. Prodn. of L-
methionine with improved efficiency by using the Escherichia coli
mutants was demonstrated.

SUPPL. TERM: Escherichia mutant fermn methionine; homoserine
transsuccinylase mutant Escherichia; S adenosyl
methionine synthetase mutant Escherichia

INDEX TERM: Escherichia coli
Fermentation
(L-methionine and prepn. with transgenic
Escherichia coli mutants with defective repressor and
enhanced homoserine transsuccinylase activity)

INDEX TERM: Protein sequences
(of S-adenosyl methionine synthetase mutants of
Escherichia coli)

INDEX TERM: Transcription factors
ROLE: BUU (Biological use, unclassified); PRP (Properties);
BIOL (Biological study); USES (Uses)
(repressors; L-methionine and prepn. with
transgenic Escherichia coli mutants with defective
repressor and enhanced homoserine transsuccinylase
activity)

INDEX TERM: Mutation
(substitution; L-methionine and prepn. with
transgenic Escherichia coli mutants with defective
repressor and enhanced homoserine transsuccinylase
activity)

INDEX TERM: 9012-52-6, Adenosyltransferase, methionine
ROLE: BAC (Biological activity or effector, except adverse);
BSU (Biological study, unclassified); BUU (Biological use,

unclassified); PRP (Properties); BIOL (Biological study);
USES (Uses)

INDEX TERM: (L-methionine and prepn. with transgenic
Escherichia coli mutants with defective repressor and
enhanced homoserine transsuccinylase activity)
63-68-3P, L-Methionine, preparation
ROLE: BPN (Biosynthetic preparation); BIOL (Biological
study); PREP (Preparation)

INDEX TERM: (L-methionine and prepn. with transgenic
Escherichia coli mutants with defective repressor and
enhanced homoserine transsuccinylase activity)
9012-50-4, Aspartokinase 9028-13-1, Homoserine
dehydrogenase 9030-70-0, Cystathionine- γ -synthase
62213-51-8, Homoserine transsuccinylase
ROLE: BUU (Biological use, unclassified); PRP (Properties);
BIOL (Biological study); USES (Uses)

INDEX TERM: (L-methionine and prepn. with transgenic
Escherichia coli mutants with defective repressor and
enhanced homoserine transsuccinylase activity)
271238-80-3 271238-81-4 271238-82-5 271238-83-6
271238-84-7 271238-85-8
ROLE: BAC (Biological activity or effector, except adverse);
BSU (Biological study, unclassified); BUU (Biological use,
unclassified); PRP (Properties); BIOL (Biological study);
USES (Uses)

INDEX TERM: (amino acid sequence; L-methionine and prepn.
with transgenic Escherichia coli mutants with defective
repressor and enhanced homoserine transsuccinylase
activity)
238086-24-3 271240-06-3 271240-07-4 271240-08-5
271240-09-6 271240-10-9 271240-11-0 271240-12-1
271240-13-2 271240-14-3 271240-15-4 271240-16-5
271240-17-6 271240-18-7 271240-19-8 271240-20-1
271240-21-2 271240-22-3 271240-23-4 271240-24-5
271240-25-6 271240-26-7 271240-27-8 271240-28-9
271240-29-0 271240-30-3
ROLE: PRP (Properties)

INDEX TERM: (unclaimed nucleotide sequence; l-methionine
and its prepn. with transgenic Escherichia coli mutants
with defective repressor and enhanced homoserine
transsuccinylase activity)

INDEX TERM: 198909-85-2
ROLE: PRP (Properties)
(unclaimed protein sequence; l-methionine and
its prepn. with transgenic Escherichia coli mutants with
defective repressor and enhanced homoserine
transsuccinylase activity)

INDEX TERM: 271241-86-2
ROLE: PRP (Properties)
(unclaimed sequence; l-methionine and its
prepn. with transgenic Escherichia coli mutants with
defective repressor and enhanced homoserine
transsuccinylase activity)

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L7 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN

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